*If you have to wait for your computer to do something complex,
maybe you're really waiting for a new computer.*

Macintosh Quadra

Macintosh Quadra

Your wait for an incredibly fast, easy-to-use computer is over.

You shouldn't have to wait for your computer.

So, whether you're waiting to finish rendering a three-dimensional model, waiting to recalculate next year's operating budget, or waiting to adjust the color balance of a photo, Apple has some very good news:

The Apple® Macintosh Quadra™ 700 and 900— the computers you've been waiting for—have arrived.

At the heart of the Macintosh Quadra computers is the fast new Motorola 68040 microprocessor, supported by a host of faster, improved subsystems—including Ethernet networking, video support, and SCSI and NuBus™ expansion. The result is faster system performance, not just in one area, but overall.

Speed is important, but not if you can't use it. That's where the Macintosh Quadra computers excel. Because they're built to put incredible power and speed at your fingertips. And like all Apple Macintosh® computers—and unlike many other computers—they're designed to be simple to set up, a snap to network, and phenomenally easy to learn and use.

Macintosh networks.

Like every Macintosh, the Quadra computers have built-in networking capability, allowing you to connect them to any LocalTalk® network. In addition, they have a built-in, self-configuring, high-performance Ethernet connection— no cards or DIP switch settings required. When it's necessary to connect to other networks, such as Token-Ring or FDDI, you can do so by adding the appropriate card to one of the Macintosh Quadra computer's NuBus slots.

All Macintosh computers come with AppleTalk® networking software, which provides connections to Macintosh local area networks. AppleTalk also allows fast, easy, consistent access to information in Digital VAX,™ Novell NetWare, IBM, and other environments. In fact, it makes working with that information just as easy as working with a floppy disk or hard disk in your own Macintosh.

Not only do Macintosh Quadra computers connect, they can also share files with other computers on a network

in several different ways. First, System 7 (the newest version of the system software that comes with every Macintosh computer) allows you to make files on your hard disk directly available to other Macintosh users on the network. Second, with AppleShare® Server 3.0 software, a Macintosh Quadra computer can be used as a central file and print server for your business or department. Finally, you can use a Macintosh Quadra computer as a database, communications, or mail server.

Macintosh advances.

Many applications support a feature of System 7 called publish and subscribe, which allows you to create links between documents that share information. This feature automatically distributes the changes you make in one document to other documents, even over a network. For instance, a coworker can publish a chart created in a spreadsheet program. You can subscribe to the chart and paste it in a report you're writing. When the numbers in the spreadsheet change, the chart in your report will be updated, too—automatically.

Another convenient feature of Macintosh computers is multitasking, which allows you to run several programs simultaneously—the number is limited only by available system memory (RAM) and hard disk capacity. The Macintosh Quadra computers have more multitasking capacity because they support full 32-bit addressing. They can also take advantage of the virtual memory feature of System 7, which uses available hard disk storage to supplement RAM. This lets you work with extremely large files and use even more programs simultaneously.

Macintosh Quadra computers bring capabilities once reserved for design and video specialists to anyone. For instance, the built-in QuickDraw™ graphics architecture allows Macintosh Quadra computers—and the software they run—to display photographic-quality images in up to 16.7 million colors. And with QuickTime,™ a system software extension, you'll be able to incorporate real-time video, sound, and animation into your work.*

Macintosh is compatible.

Chances are, your Macintosh Quadra computer will be part of a larger, multivendor workplace, where people use hardware and software from various companies. Your Macintosh Quadra will fit right in, because its Apple SuperDrive™ floppy disk drive can use Macintosh, MS-DOS, and OS/2 disks. And, in addition to the Macintosh operating system, the Macintosh Quadra can run MS-DOS** and the A/UX® operating system* (Apple's implementation of UNIX®). So you can run your favorite applications—just as though they were on your old computer.

Macintosh Quadra 700   *Macintosh Quadra 900*

And it's still easy to use.

The design of Macintosh software can speed up your work, too. That's because Macintosh programs share the same, easy-to-use, intuitive way of working, so once you've learned one program, you don't have to spend much time learning others. And the thousands of Macintosh programs work together, which means you can copy the work you do in one program and use it in another.

So if you've been waiting for an incredibly easy-to-use computer that's fast enough to handle your most demanding work, the wait is over.

The Macintosh Quadra computers are here.

A/UX for the Macintosh Quadra and QuickTime will be available in early 1992.

**You can run MS-DOS in a window on the Macintosh screen in two ways: by using a software program called SoftPC from Insignia Solutions, or by installing an Orange386 card from Orange Micro.

Macintosh
Quadra 700

Macintosh
Quadra 900

Speed is in the details.

How fast are they?

Measured in computer performance terms, the new Motorola 68040 microprocessor runs at 25 megahertz. Because it incorporates a math coprocessor, a memory controller, and cache memory in one integrated chip, the 68040 runs faster than some microprocessors running at 33 megahertz. But we did more than add a fast new processor to Macintosh—we also sped up the subsystems that work with the processor.

As a result, the Macintosh Quadra 700 and 900 computers run up to twice as fast as the fastest previous Macintosh, the 40-megahertz 68030-based Macintosh IIfx. This is the kind of speed you really appreciate when you need your computer to redraw a complex graphic, recalculate a large spreadsheet, or reformat a long document.

Measured in human performance terms, Macintosh Quadra computers are designed to take only a few minutes to set up, and only a few hours to get used to. Just plug in the keyboard, mouse, and display—no need to add more cards or fiddle with configuration files. Connecting to a network is literally a snap. And the Macintosh uses software that has a common set of conventions—

beginning with the English language—that makes programs clear, consistent, understandable, and easy to learn.

To measure a computer's speed in business terms, you need to get the experts to do the measuring. When asked to compare different computers, MIS directors rated Macintosh users 15 percent more productive than people using systems with Microsoft Windows 3.0.*

And if you think about it, human productivity is probably the best real measure of speed there is.

What makes them so fast?

The mission of the Macintosh Quadra engineering team was to incorporate new technology to speed up the Macintosh components, in order to deliver what is arguably the most powerful pair of personal computers in the industry.

They began with the fast Motorola 68040 microprocessor, enabling the Macintosh Quadra computers to run the currently available Macintosh software faster, and making possible the development of even more powerful new software.

But they didn't stop there. They sped up everything.
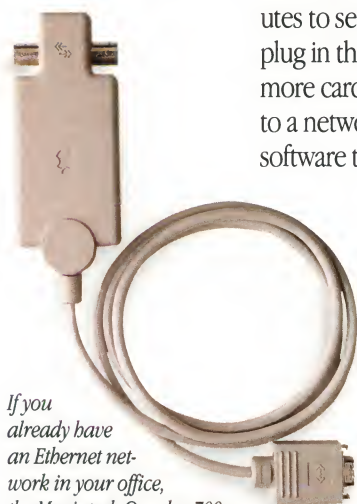
If you already have an Ethernet network in your office, the Macintosh Quadra 700 and 900 will be right at home, because each has built-in Ethernet capabilities. And Apple's Ethernet Cable System can connect your Macintosh Quadra to any standard Ethernet medium—thin coax, AUI, or twisted-pair (10BASE-T).

1

Motorola 68040
Running at 25 megahertz, it's up to two times faster than the 68030 in the Macintosh IIfx.

2

Built-in video
The new high-performance video display architecture supports up to 16.7 million colors. Video RAM can be expanded to up to 2 megabytes.

3

SCSI controllers
Now SCSI data transfer occurs at rates of up to 4 megabytes per second—almost twice the rate on previous Macintosh systems.

Video connector
Supports 256 colors on 13-inch and smaller displays. With additional video RAM, supports 16.7 million colors on 16-inch and smaller displays, and 256 colors on 21-inch displays.

SCSI connector
Connects up to seven SCSI devices.

Ethernet connector
For twisted-pair, thin coax, and Attachment Unit Interface (AUI) media, including thick coax and fiber-optic cable.
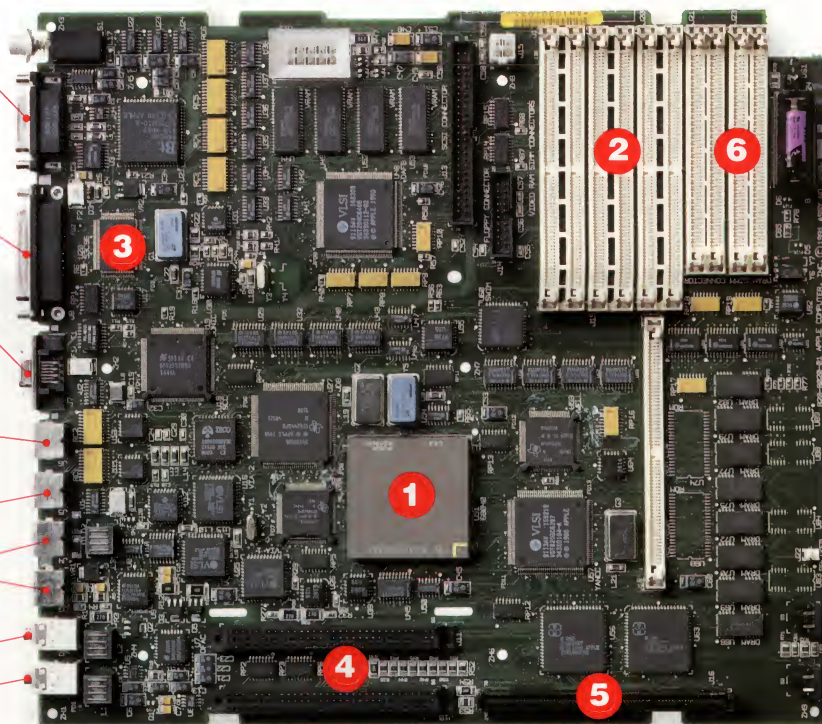
Serial port (printer)
Connects to a LocalTalk network.

Serial port (modem)

Apple Desktop Bus ports
For connecting a keyboard, mouse, and other input devices.

Sound output

Sound input
For microphone.

1987
Macintosh II

68020 processor

68851
memory
controller

68881
floating-
point math
coprocessor

1989–1990
Macintosh
IIci and IIfx

68030 processor

68882
floating-
point math
coprocessor

Memory
caches

1991
Macintosh
Quadra 700
and 900

68040 processor

The Motorola 68030 processor incorporates all the capabilities of the 68020 processor, as well as the functions of the memory management controller. The new 68040 processor integrates all the functions of the 68030, along with those of the floating-point coprocessor and memory caches, to deliver speeds up to triple those of the 68030 processor running at the same clock speed.

Starting with the video display architecture, which they custom-designed to allow the display of 16.7 million colors on a variety of monitors, directly from the main logic board.

They sped up the controllers for the SCSI ports to permit transfer rates of up to 4 megabytes per second. Of course, they made sure the new SCSI design works with currently available SCSI devices.

They built on the advantages of the NuBus architecture by enabling the NuBus to run up to twice as fast. (NuBus allows you to add expansion cards without setting switches, checking slot numbers, or having to do anything other than plug in the cards.) Again they made sure that all the currently available NuBus cards still worked perfectly, too.

Once they were satisfied with the speed of the logic board, they decided to make the Macintosh Quadra computers even more powerful by adding expansion and storage capabilities.

More about those capabilities on the next page.

4

NuBus slots
The new implementation of NuBus runs up to twice as fast as the Macintosh IIfx NuBus.
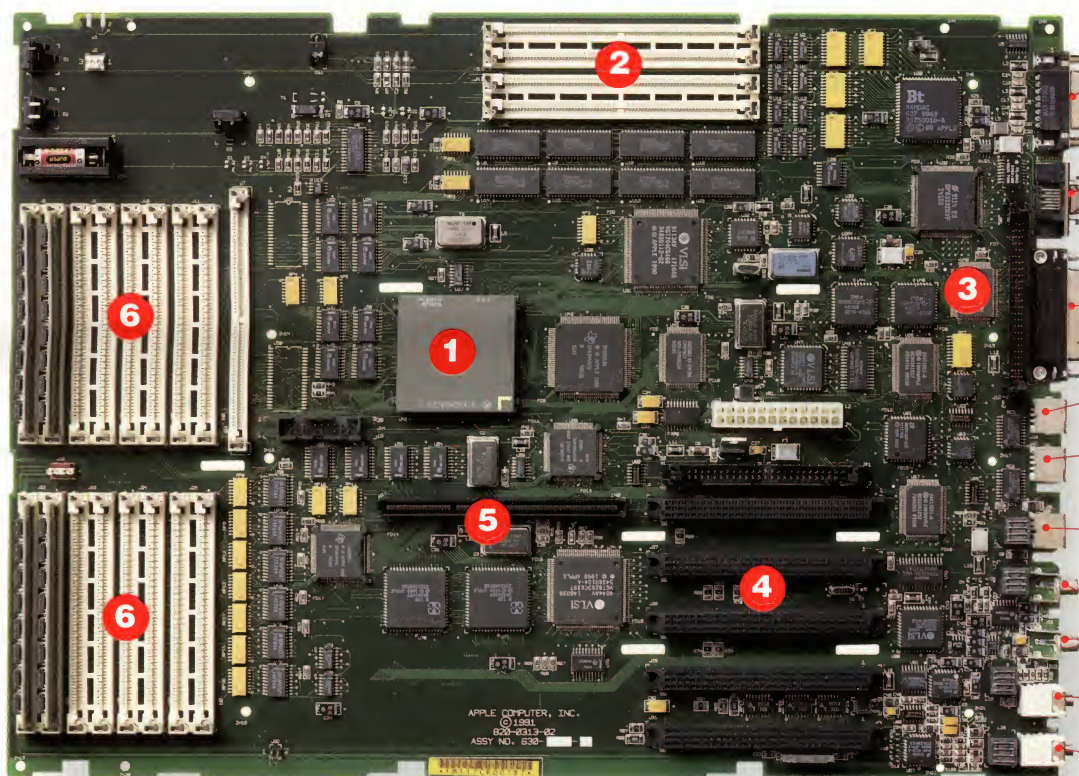
5

Processor-direct slot
This slot permits direct access to the 68040—even faster access than NuBus—and can accept high-speed I/O cards or accelerator cards.

6

RAM SIMM slots
The Macintosh Quadra 700 has four SIMM slots, and the Macintosh Quadra 900 has 16 SIMM slots.

Video connector
Supports 256 colors on 21-inch and smaller displays. With additional video RAM, supports 16.7 million colors on 16-inch and smaller displays.

Ethernet connector
For twisted-pair, thin coax, and AUI media, including thick coax and fiber-optic cable.

SCSI connector
Connects up to seven SCSI devices.

Serial port (modem)

Serial port (printer)
Connects to a LocalTalk network.

Apple Desktop Bus port
For connecting a keyboard, mouse, and other input devices.

Sound input (left and right)

Sound input
For microphone.

Sound output

Why a two-slot Macintosh is more expandable than a six-slot something else.

"More slots" means "more expandable," right?

Not necessarily.

Often, computers have a lot of slots because important features are left out.

If you want those features, you pay extra for them. And buying cards means you have to spend time configuring jumpers or setting DIP switches, installing the cards, installing the drivers, and updating the configuration software.

You might have better things to do.

At Apple, we think it's our job to put the pieces together. We design all the major components of the Macintosh ourselves: not just the hardware, not just the system software, but the user interface and the networking, as well. We design them to work together, so that they work better.

When we design a computer, we build in all the things you need to begin working.

You can't run a screen display without video support. So we build it in, along with the capacity to expand the display to true photographic-quality color.

We never thought networking was optional. We believe people should be able to share their work, as well as networked resources and electronic mail. So we built networking into every Macintosh from day one, and made it as easy to connect as plugging a telephone into a wall jack. Millions of Macintosh owners have done just that. In order to network other computers, you have to buy a networking card and networking software, and figure it out for yourself.

With our AppleTalk networking capabilities, adding a printer is as easy as adding a Macintosh. Plug it in, and it lets all the Macintosh computers on the network know it's there, automatically. If your company uses an Ethernet

network, you're all set, because your Macintosh Quadra computer has an Ethernet connector on the back.

We think system software is the most important part of a computer, so we build our own. And we design it to work with Macintosh computers, so you get the best performance from graphics-based applications, and so those applications can take advantage of Macintosh color and sound capabilities. Which, in turn, means that software and hardware developers don't have to guess which features your computer has or which operating system you're using. With other computer systems, you can add features yourself, but it's up to you to make sure your software works with them.

With Macintosh, you have a lot less to worry about.

Apple designs the Macintosh hardware and system software so it works faster and better for the human beings who have real work to do.

The chart on the right shows that Apple builds into the Macintosh Quadra 700 the features that most people demand from their computers. So the two slots in the Macintosh Quadra 700 are probably sufficient for your expansion needs.

If you do insist on a computer with more than two slots, however, we have a suggestion:

The five-slot Macintosh Quadra 900.

For people who need large amounts of storage, the Macintosh Quadra 900 provides bays for four half-height drives.

Two half-height drives	Apple SuperDrive
or one full-height drive	Removable half-height drive

Macintosh Quadra 700
The Macintosh Quadra 700 fits on a desk and comes with an internal SuperDrive floppy disk drive and space for a hard disk drive. It also includes two NuBus slots, 4 megabytes of RAM on the logic board (with space for up to 20 megabytes), and 512 kilobytes of video RAM (with space for up to 2 megabytes). Owners of the Macintosh IIci and IIcx can upgrade to the Macintosh Quadra 700.

Macintosh Quadra 900
The Macintosh Quadra 900 fits under a desk and comes with an internal SuperDrive floppy disk drive and space for three other half-height storage devices. It includes five NuBus slots, 4 megabytes of RAM (with space for up to 64 megabytes), and 1 megabyte of video RAM (with space for up to 2 megabytes). The Macintosh Quadra 900 also has an electronic keylock, to ensure that jobs can run uninterrupted.
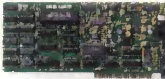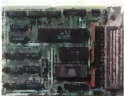
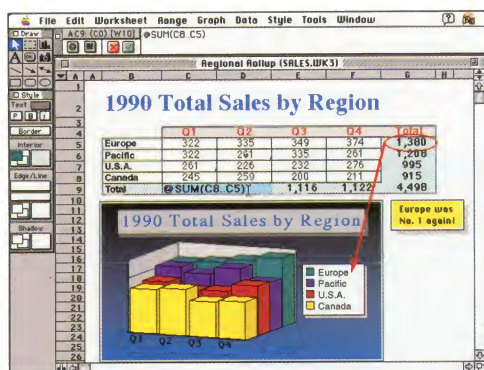|		Macintosh Quadra 700	Typical 80486-Based Personal Computer	
		Macintosh Quadra 700 computers come with all the things you need to begin working—built in.	A typical 80486-based personal computer doesn't have enough expansion slots to let you add all the features that are standard on the Macintosh Quadra.	
1	Ethernet	Built in. No slot or card necessary.	Buy, install, and configure Ethernet card. Buy, install, and configure networking software.	
2	24-bit color support	Built in. Applications automatically take advantage of 24-bit color. No slot or card necessary.	Buy, install, and configure 24-bit video card and software driver. Most applications don't take advantage of this color capability.	
3	Sound	Input/output ports built in. Microphone and speaker included. No slot or card necessary.	Buy, install, and configure sound card and microphone.	
4	Scanner	Built-in SCSI support for up to seven devices. No slot or card necessary.	Buy, install, and configure scanner controller card. Or buy, install, and configure SCSI card.	
5	External CD-ROM drive	Built-in SCSI support for up to seven devices. No slot or card necessary.	Buy, install, and configure CD-ROM drive card. Or buy, install, and configure SCSI card.	
6	External hard disk	Built-in SCSI support for up to seven devices. No slot or card necessary.	Buy, install, and configure hard disk controller card. Or buy, install, and configure SCSI card.	
		You've got two NuBus slots left, so you can install a video card for a second display, a video-capture card, a Token-Ring card, or an IEEE-488 card to connect laboratory instruments. You can also add four more SCSI devices. And you still have an Apple Desktop Bus™ connector, which allows you to add a drawing tablet, a stylus, or a trackball.	You've used all six slots.	

THINK C by Symantec

An extremely fast C compiler that saves you application development time. Its debugging environment allows you to watch the program output in one window, examine the values of the variables in another, and step through the code line by line in a third.
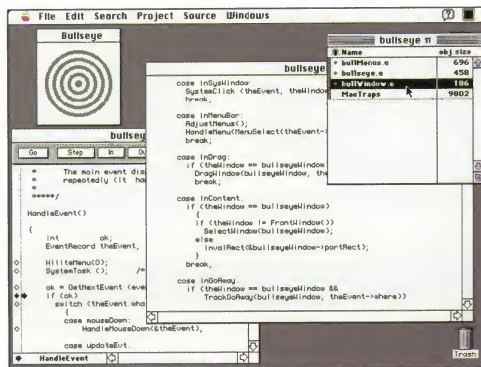
ORACLE Server for Macintosh by Oracle

This product brings the industry-standard ORACLE database server to the Macintosh. Popular Macintosh applications, such as HyperCard,® 4th Dimension, and Omnis 5, as well as query tools and spreadsheets, can tap into vast amounts of information from a Macintosh-based ORACLE server.

Lotus 1-2-3 by Lotus Development

Lotus 1-2-3 for Macintosh lets you create complex spreadsheets while taking advantage of Macintosh ease of use. Capabilities include in-cell editing and direct manipulation of text, graphs, and drawn objects.
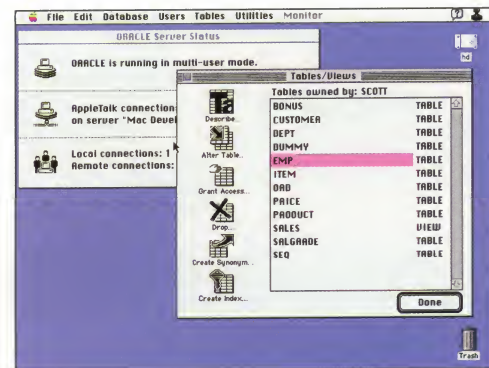
Macintosh Quadra in Business

In today's complex business world, people whose work demands sophisticated applications want faster, more powerful computers.

The Macintosh Quadra 700 and 900 are designed to fill the needs of businesspeople who have to handle large amounts of information efficiently—whether they work with client/server multiuser databases or complex financial models.

With their high-performance 68040 processors, fast-access internal hard disks, and built-in Ethernet capabilities, the Macintosh Quadra 700 and 900 deliver easy, efficient access to information for both workgroups and individuals.

With the Macintosh Quadra computers, you can run powerful multiuser systems within a Macintosh workgroup. And by using products such as the ORACLE Server for Macintosh or the Great Plains Accounting Series Client/Server Network Module, you can run Macintosh-based server applications to support critical business functions, all with the ease of Macintosh.

Omnis 5 by Blyth Software

A comprehensive program for developing business data-management applications, from simple mailing lists to complete systems. Omnis 5 provides you with run-time options, multiuser support, optional SQL links, full-color graphics, user-defined menus, and access to HyperCard applications.

4th Dimension by ACIUS

4th Dimension lets you use the power of your Macintosh to update, analyze, and report on large database files. Its easy-to-use interface includes features for streamlining data management and creating applications. These features include automatic button scripting, multipage layouts, and a drawing editor.
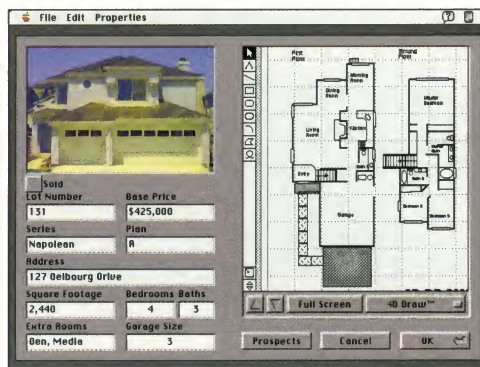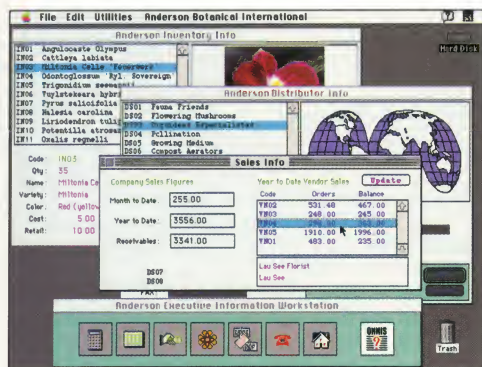
On the client side, the more horsepower on an individual's desk, the better. With the Macintosh Quadra computers and off-the-shelf applications such as 4th Dimension and Omnis 5, you can create client applications that access DB2, ORACLE, Sybase, or Rdb. So you can analyze data and generate reports, graphs, and presentations—all with a faster turnaround time.

Server applications are important, but people working independently at their own desks need speed, too. No one likes to wait. Unfortunately, that's just what happens when most personal computers recalculate large spreadsheets, perform complex sorts on huge databases, or attempt to handle complicated reporting tasks.

The Macintosh Quadra computers were designed with the speed and power to put an end to the waiting.

But all the speed and power in the world doesn't mean much if people don't know how to use it. That's where the first name of these computers makes the real difference: Macintosh.

They're the fastest and most powerful members of a family of computers legendary for being easy to learn, easy to understand, and easy to use. They're computers that, in the opinions of MIS directors, have far lower training and support costs than their competitors—and are rated far more likely to improve the productivity of the people who use them.*

Source: Macintosh or Windows 3.0?, a study by Diagnostic Research, Inc. (1991).
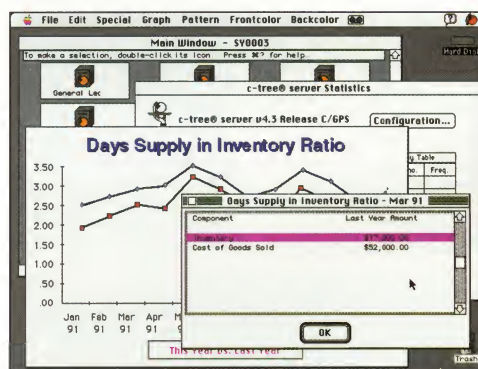
Great Plains Accounting Series by Great Plains Software

The Great Plains Accounting Series Client/Server Network Module provides fast throughput of accounting transactions in other Great Plains modules, including general ledger, accounts payable, accounts receivable, payroll, and inventory.

Financial Management and Accounting
Great Plains
  Accounting Series
Accountant, Inc. by
  Softsync/BLOC
Insight Expert Series by
  Peachtree
FY Plan by Pillar
MarketMax by TriStar
  Market Data

Spreadsheet Analysis
Lotus 1-2-3 for Macintosh
Claris® Resolve™
Microsoft Excel
Informix Wingz

Client/Server Database Solutions
ORACLE Server for
  Macintosh
ACIUS 4th Dimension
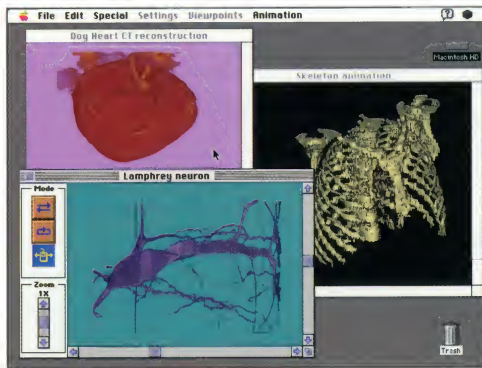Omnis 5 by Blyth Software
FoxBASE+/Mac by
  Fox Software

Custom Applications Development
CASE Tools:
DEFT by Sybase
Silverrun by CSA Systems
Nexpert Object by
  Neuron Data

Fourth-Generation
Languages:
THINK C by Symantec
Apple MPW® C++
Apple MacApp®

VoxelView/Mac
by Vital Images

VoxelView/Mac provides true volume rendering for visualizing data in fields such as microscopy, medical imaging, oil and gas exploration, non-destructive industrial inspection, and fluid dynamics.

The engineers at the Casablanca Fan Company used VersaCAD design and drafting software to create the design and working drawings for this product.

LabVIEW
by National Instruments

A programming environment for the acquisition, analysis, and presentation of data. LabVIEW is well-suited for instrument and process control, laboratory automation, automated testing and measurement, scientific experimentation, simulation, and modeling.
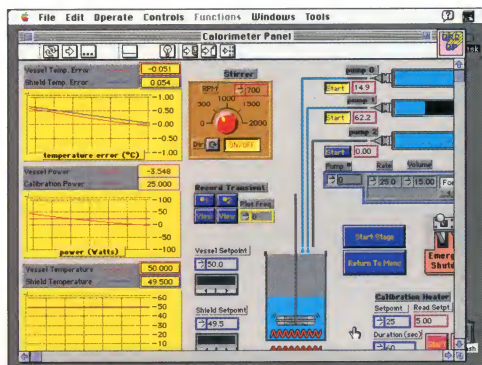
AutoCAD
by Autodesk

A general-purpose, three-dimensional computer-aided design and drafting program. Its open architecture, embedded high-level programming language, and support for a wide variety of peripheral devices make it well-suited for nearly any CAD project.

MicroStation Mac
by Intergraph

A fast two- and three-dimensional CAD program for generating, manipulating, displaying, and printing graphic data. Provides direct links between ORACLE databases and the graphic elements in design files, so you can integrate database records into your designs.

MacBRAVO!
by Schlumberger CAD/CAM Division

Allows you to model an engineering concept and take it to its finished, detailed, dimensional stage. MacBRAVO! creates wire-frame surfaces and quickly shades them, letting you view your finished design without having to use a rendering program.
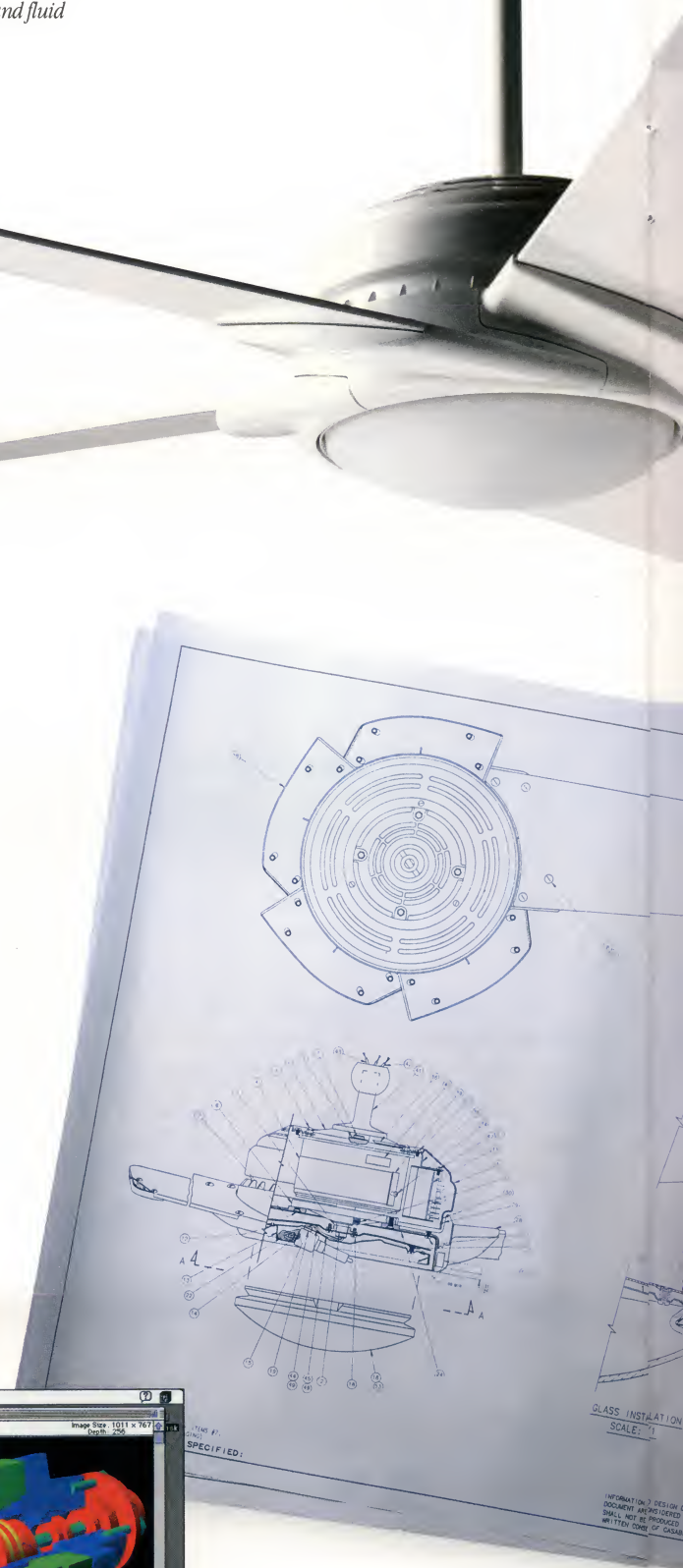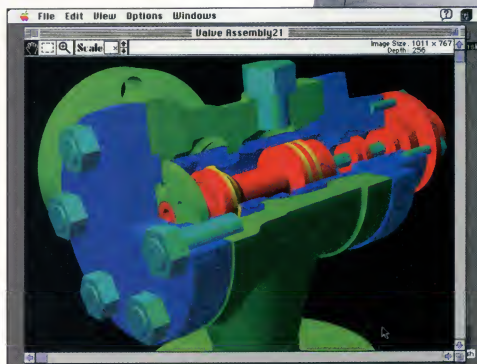
Macintosh Quadra in Engineering

Architects, engineers, and scientists spend much of their time working with ideas, and finding ways to make their ideas real—taking them from concept to production or construction.

The process of turning those ideas into reality just got quicker. The new Macintosh Quadra 700 and 900 computers are two fast, versatile tools that will find themselves at home in the hands of architects, engineers, scientists, and manufacturing engineers.

If you're an architect, you can quickly sketch a building in a three-dimensional conceptual modeling program to develop your initial design. When you're ready to show the idea to your client, you can add a scanned photo of the site, combining the model and the photo to show your building in its "real" environment. Or you could give your client a real-time "walk through" tour of the proposed building. As the client makes changes, you can easily modify the design, then use various analytical packages to perform code, structural, shadow, and lighting analyses. Finally, you can use a CAD program to create detailed construction drawings.

If you're a mechanical engineer or designer, you can imagine a similar scenario for product design. Begin your product definition by analyzing costs, schedules, and manufacturing issues. Then use a two- or three-dimensional design tool to build a model and visualize it in a realistic setting. Once you have a model, you can use a finite-element analysis program to perform a stress analysis, and then use a production CAD program to produce working drawings.

Meanwhile, your documentation team can use a technical publishing program to create training and service manuals and other documents. Engineering documents can be stored on the Macintosh Quadra and transmitted for use in manufacturing or construction.

If you're a manufacturing engineer, you can use Macintosh Quadra computers for planning, shop floor management, and statistical process control.

Scientists and researchers can use data-acquisition tools to gather data, then analyze the information using visualization and image-processing tools. You can even design and analyze biological and chemical structures on the Macintosh Quadra computers. The data and designs can be integrated into technical documents and presentations using technical publishing and presentation software.

Technical professionals will also appreciate the Macintosh Quadra computers when they're writing engineering change orders, recalculating project budgets, planning schedules, and managing all the things that need to be done in a typical day. Because there are hundreds of off-the-shelf, easy-to-learn word processing, spreadsheet, database, and productivity programs for Macintosh computers, making the burden of all those things a lot less burdensome.

Transform by SpyGlass

Gives scientists, researchers, and engineers the ability to analyze arrays of floating-point numbers visually by representing them as color images and graphs, in such application areas as engineering, physics, chemistry, biology, medicine, and geology.
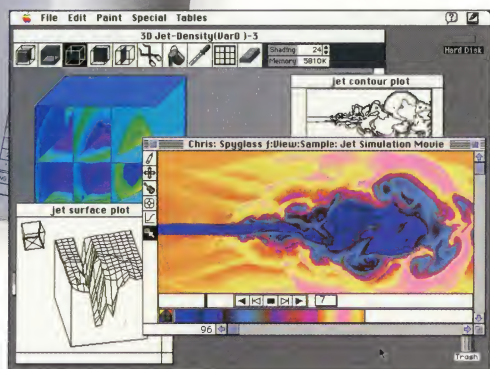
Architecture, Engineering, Construction, Mapping
AutoCAD by Autodesk
MicroStation Mac by Intergraph
ArchiCAD by Graphisoft
MapGrafix by ComGrafix
Virtus WalkThrough
Alias Upfront
Claris CAD

Mechanical Design and Analysis
Schlumberger MacBRAVO!
Ashlar Vellum
Alias Sketch!
MSC/pal 2 by MacNeal-Schwendler
INERTIA by MCAE
VersaCAD
DesignCAD 2D/3D

Modeling and Rendering
Sculpt 3D/4D by Byte-by-Byte
VIDI Presenter Professional
StrataVision 3D
Infini-D by Specular
Dynaware DynaPerspective
Ray Dream Designer

Scientific/R&D
VoxelView/Mac by Vital Images
Transform by SpyGlass
Mathematica by Wolfram Research
ISIS/Draw by Molecular Design
LabVIEW by National Instruments

Manufacturing
The Gibbs System; ncCAD/ncCAM
Automatix AutoVision 90
nuControl by nuLogic
RackMac by GreenSpring

Peripherals
Display List Accelerators:
QuickCAD Graphics Engine by Radius
Artist XJS

Digitizers and Tablets:
CalComp
Kurta
Summagraphics

Plotters:
Houston Instruments
CalComp
Hewlett-Packard
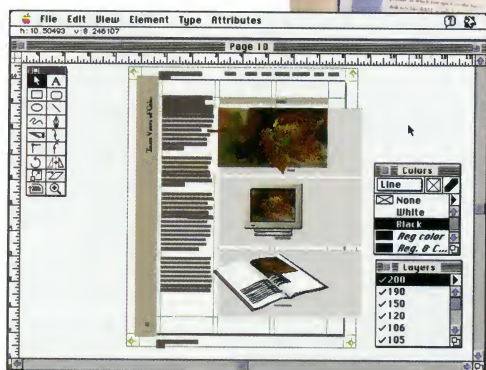
Aldus FreeHand by Aldus

A design and illustration tool that offers graphic designers and technical illustrators an elegant, easy-to-use interface with exceptional power. New features include Colors, Layers, and Styles tool palettes, as well as flicker-free drawing.

Macintosh Quadra in Publishing

Whether you're designing a book, retouching a photograph, or making color separations for a new product brochure, it's likely that you're working under tight deadlines. And you're probably looking at—or looking for—a computer. Chances are, that computer is a Macintosh.

The Macintosh Quadra 700 and 900 computers were designed for the task of getting your work out the door fast. Faster comps. Faster proofs. And faster production. All with the control—and the quality—you demand.

The Macintosh Quadra computers run the host of Macintosh programs that handle design layout, illustration, photographic-image manipulation, and complex commercial publishing.

Macintosh computers are also fast becoming the standard for connecting prepress systems, imagesetters, film recorders, proofing systems, and other complex new imaging systems.

Why?

Three reasons.

First, they're designed from the chips up to handle complex graphics tasks—quickly.

Second, they're also designed to work with a wide variety of document formats, operating systems, networking systems, and dedicated publishing systems.

Third, and most important, they're designed to be easy to understand and use. You'll find that the Macintosh computer's consistent approach to software commands and tools saves learning time.

You'll also find that you don't have to spend your days reading manuals. Because with their point-and-click, copy-and-paste, mouse-based way of working—and all their commands in plain English—Macintosh computers just aren't complicated to use.

In fact, if you can point and push a button, you've already mastered the basics of handling two of the fastest, most powerful personal computers ever built: the Macintosh Quadra 700 and 900.
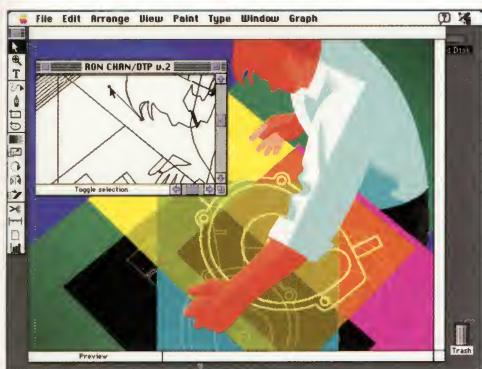
Adobe Illustrator
by Adobe Systems

Illustrator provides all the tools you need for single-page illustration, design, and layout. It includes sophisticated text-handling capabilities, automatic graphing of directly imported spreadsheet data, and tools for freehand sketching and automatic tracing of scanned images.

Adobe Photoshop
by Adobe Systems

Photoshop is a prepress, color-correction, painting, video-editing, and darkroom system all in one package. You can edit and merge images in 24-bit color or monochrome. You can even view and edit high-resolution CMYK color scans on the Macintosh screen.
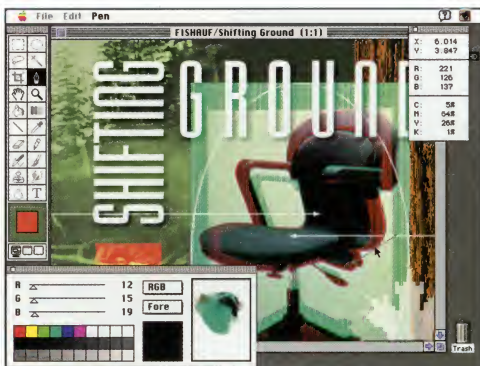
ColorStudio by Letraset

ColorStudio and the accompanying Shapes module merge color imaging and Adobe PostScript®-based drawing into a single creative environment. ColorStudio provides true-color rendering during the design and reproduction process, works with all Adobe Photoshop plug-ins and drivers, and supports a full CMYK mode for color displays.
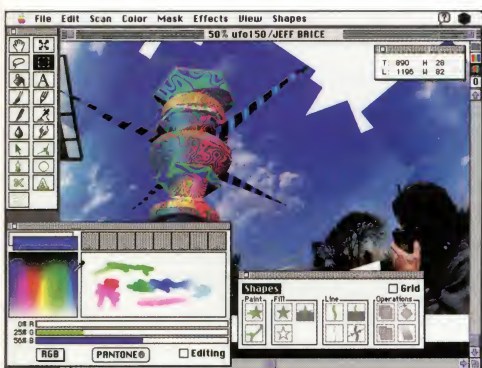
FrameMaker by
Frame Technology

Combines word processing, page layout, graphics, table and equation tools, and structured-document tools into one easy-to-use application. The table editor lets you create tables with graphics, unlimited paragraphs, and rotated text within cells.
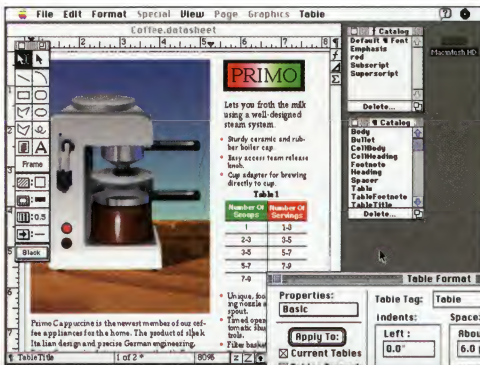
QuarkXPress
by Quark

A sophisticated publishing environment with precision layout and typographical tools, support for both spot and process color, and powerful prepress capabilities. Lets you store frequently used pictures, formats, or text in a library for future use.
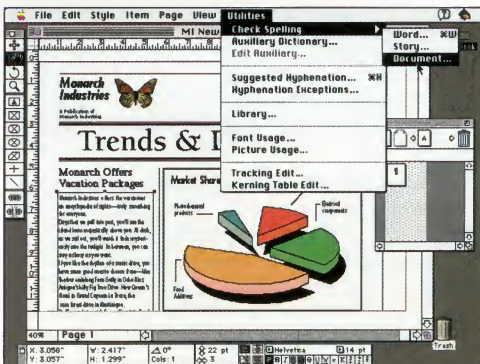
Publishing

Layout and Illustration
QuarkXPress
Aldus PageMaker
Adobe Illustrator
Aldus FreeHand
Deneba Canvas

Image Manipulation
Adobe Photoshop
Letraset ColorStudio
Oasis by Time Arts
PixelPaint Professional
  by SuperMac
Studio/32 by
  Electronic Arts

Commercial Publishing
Interleaf Publisher
FrameMaker by
  Frame Technology
Ventura Publisher by
  Xerox

Peripherals
Slide Makers:
Agfa Matrix
Mirus
Presentation Technologies

Color Printers:
IRIS SmartJet
QMS
Tektronix

Imagesetters:
Linotype
Agfa

Scanners:
Apple
Howtek
Nikon
Barneyscan
Microtek

Tablets:
Wacom

Screen Calibrators:
Radius
SuperMac
Barco

Macintosh Quadra in Media Integration

Until now, people working with sound, video, and animation have usually had to work with extremely large, complex, dedicated computers. The problem is, those computers demand extensive training and large budgets. And though dedicated computers may be good at the task to which they're dedicated, it's been pretty hard to find a single computer that's good at combining media.

Until now.

The Macintosh Quadra 700 and 900 are a pair of easy-to-use computers that offer the versatility, speed, and performance required by creative people. The Macintosh Quadra computers—together with a host of easy-to-learn, easy-to-use, graphics-based applications—allow creative people to shape, combine, synchronize, and publish their work in a variety of media, and to see their work in progress at each step along the way.

To make all that even easier, Apple's Macintosh engineers are developing an extension to the Macintosh system software called QuickTime. QuickTime and the Macintosh Quadra computers will provide an excellent platform for the integration and synchronization of
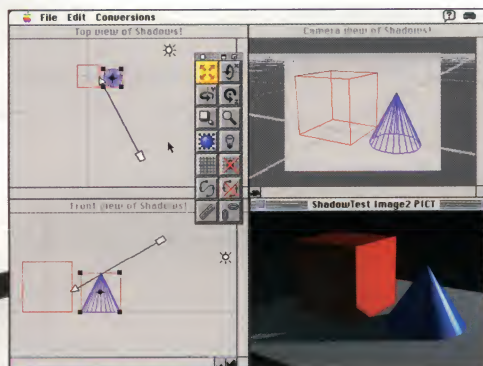
ElectricImage Animation System by ElectricImage

ElectricImage is a three-dimensional rendering and animation system that allows you to create everything from sales presentations to broadcast-quality special effects.
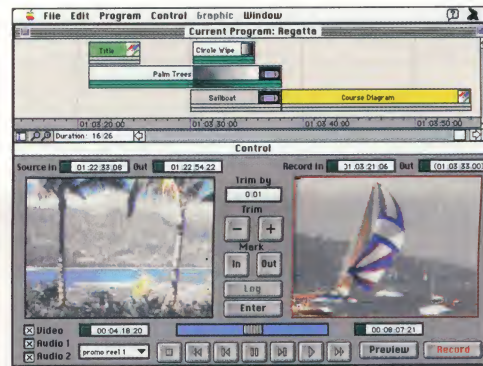
Video F/X by Digital F/X

Video F/X is a highly integrated and cost-effective video editing system. You can use it to create scripts or video storyboards; import and edit video, graphics, and audio elements; and then assemble and export finished programs to videotape automatically.

high-quality still images, animation, sound, and full-motion video. QuickTime will also provide a way to play back animation and video on any Macintosh computer.

But the benefits of the Macintosh Quadra/QuickTime partnership will soon extend beyond the three million fortunate people who are already using Macintosh computers every day. QuickTime-based applications will also support industry-standard ISO JPEG compression and decompression algorithms for still images, animation, sound, and full-motion video. *And, through a new QuickTime cross-platform file format called Movie, you'll be able to create movies on a Macintosh Quadra and play them on other kinds of computers.*

This new standard also means that Macintosh Quadra owners and developers can create movies and interactive works for Macintosh users and for people who use other kinds of computers.

When was the last time you heard about a computer so good that it even benefited people who bought competing computers?
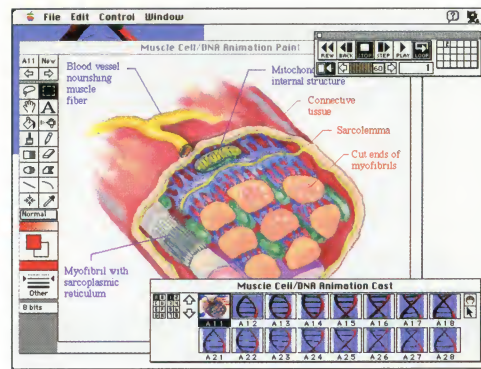
MacroMind Director by MacroMind
With Director, you can create multimedia presentations that combine text, graphics, sound, and animation. You can even synchronize your work with sound or video.
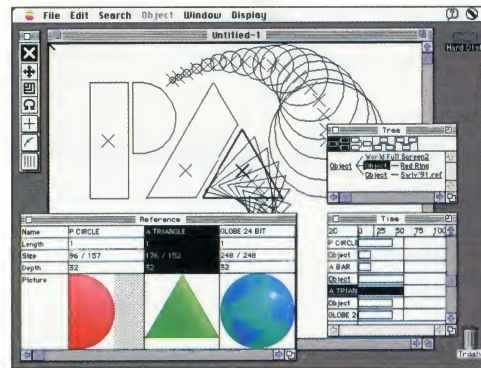

FilmMaker by Paracomp
FilmMaker provides dedicated animation tools that allow you to produce multimedia presentations and animation. You can convert three-dimensional images to two dimensions; control the path, position, scale, and rotation of animated objects in real time; and import sound to create tutorials, simulations, and films.

Infini-D by Specular International
Infini-D is a three-dimensional modeling, rendering, and animation environment. Features include photo-realistic shading and ray-tracing, multiple lights and cameras, and predefined surface libraries.
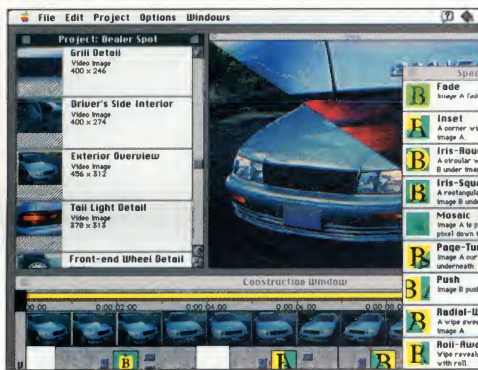
ReelTime by SuperMac Technology
An easy-to-use digital video editor that works with QuickTime-compatible digital video products. You can use ReelTime to select video and audio clips, add special effects, mix audio, and export movies in QuickTime or NTSC format.

Media Integration

Authoring Products
Claris HyperCard
MacroMind Director
Aldus SuperCard

Animation Products
ElectricImage
Infini-D by Specular
   International

Video Editing
Video F/X by Digital F/X
ReelTime by SuperMac

Peripherals
Laserdisc Players:
Sony
Pioneer

VCRs:
Sony Video8
NEC PC-VCR

Speakers:
Acoustic Research
   Powered Partners
Bose RoomMate

CD-ROM Drives:
AppleCD SC® Plus

Taking advantage of the sophisticated Motorola 68040 processor, the Apple Macintosh Quadra 700 computer is designed for tasks that require exceptional processing power. With several hard disk options, support for all Apple displays, and the built-in capability to connect to Ethernet networks, the Macintosh Quadra 700 allows you to handle even the toughest tasks. It's the highest-performance desktop Macintosh available.

The Apple Macintosh Quadra 900 computer is designed for tasks that require optimal processing power and storage space. Designed as a floor-standing computer, the Macintosh Quadra 900 provides you with the same performance as the Macintosh Quadra 700 computer. It has more expansion and storage options, and includes an electronic keylock.

	Macintosh Quadra 700	Macintosh Quadra 900
Processor	25-MHz 68040 that includes a math coprocessor, paged memory management unit (PMMU), and 8K memory cache	25-MHz 68040 that includes a math coprocessor, paged memory management unit (PMMU), and 8K memory cache
Memory	4MB of RAM, expandable to 20MB: —4MB on the logic board —Four empty SIMM slots that support 1MB SIMMs or 4MB SIMMs	4MB of RAM, expandable to 64MB: —4MB in SIMM slots (1MB in each of four slots) —12 empty SIMM slots that support 1MB SIMMs or 4MB SIMMs
Disk storage	1.4MB internal Apple SuperDrive Optional 80MB, 160MB, or 400MB internal hard disk drive	1.4MB internal Apple SuperDrive Space for three more half-height 5.25-inch drives, including an optional 160MB or 400MB internal hard disk drive
Networking	Built-in Ethernet and LocalTalk connections; AppleTalk networking software	Built-in Ethernet and LocalTalk connections; AppleTalk networking software
Display capabilities	Built-in support for the Macintosh 12-inch Monochrome Display, Apple Macintosh Portrait Display, Apple Two-Page Monochrome Monitor, Macintosh 12-inch RGB Display, AppleColor™ High-Resolution RGB Monitor, and Macintosh 21-inch Color Display	Built-in support for the Macintosh 12-inch Monochrome Display, Apple Macintosh Portrait Display, Apple Two-Page Monochrome Monitor, Macintosh 12-inch RGB Display, AppleColor High-Resolution RGB Monitor, and Macintosh 21-inch Color Display
Expansion capabilities	Two NuBus slots, 040 processor-direct slot; supports up to seven SCSI devices	Five NuBus slots, 040 processor-direct slot; supports up to seven SCSI devices
Ports	Two serial (RS-232/RS-422) ports, two Apple Desktop Bus ports, video-output port, SCSI port, Ethernet port	Two serial (RS-232/RS-422) ports, Apple Desktop Bus port, video-output port, SCSI port, Ethernet port
Sound	Input port, output port; microphone included	Input port, output port, two line input ports; microphone included

Your authorized Apple reseller or representative can answer questions about the products described in this brochure. You'll also want to ask about the one-year limited warranty that comes with all Apple hardware products, and about AppleCare,® our extended service plan.

To complement our products, Apple provides a wide variety of service, support, and training options. For information, you can request a free copy of the *Apple Guide to Service, Support, and Training*. Ask your reseller for a copy, or send your name and address to Apple Guide to Service, Support, and Training, 703 West Housatonic Street,

Pittsfield, MA 01201-9816.* We also offer several financing options for those who qualify. Your reseller can give you more information about these programs.

For the name of the authorized Apple reseller or representative in your area, call 1-800-446-3000, ext. 445.